

REMARKS

Claims 1-24 are pending and remain for consideration. Claim 1 is being amended herein.

This response was intended to be a follow-up to a telephonic interview which until now has not been scheduled by the Examiner. On April 28, 2009 the undersigned spoke with the Examiner by telephone asking to arrange for a telephonic interview to discuss claim rejections and proposed clarifying claim amendments in order to advance the present application – which has been pending for more than five years – to issue. It was the hope that a telephonic interview could resolve the outstanding issues so that Applicants would not have to pay for yet another request for continued examination.

During the telephone conversation of April 28, 2009, the Examiner asked Applicants to fax an interview summary. The undersigned on the same day faxed a Summary of Issues for Telephonic Interview. The Examiner called the undersigned back on April 30, 2009 stating that he received the Summary, but that he wanted his supervisor to be present. The Examiner informed the undersigned that his supervisor would be away from May 4 to May 15, and therefore the Examiner would call the undersigned back on May 18 to arrange a date of around May 19 or May 20 for the telephonic interview.

The Examiner has never called back the undersigned, and has not returned the undersigned's follow-up voice messages including a message left on June 10, 2009. Applicants cannot afford to wait any longer for arranging a telephonic interview and consequently are now forced to file this response without the benefit of a telephonic interview and to pay for a one month extension fee because of the above-mentioned delay in waiting to hear from the Examiner.

Therefore, in view of Applicants' above-mentioned attempts to cooperate with the Examiner in order to resolve the matters pending for more than five years, Applicants respectfully request serious reconsideration of the claim rejections in order to advance the present application to issue.

Claims 1-24 are rejected under 35 U.S.C. § 112, second paragraph as allegedly being indefinite. The Examiner believes that the term "may be" in claim 1 implies an optional limitation. The rejection is traversed and reconsideration is respectfully requested, particularly in view of the clarifying amendment to claim 1.

The term "may be" does not render the claim indefinite because it must be read in the entire context of the claimed terminology. Applicants are not positively claiming that the bondhead is accelerated and decelerated every time a cycle is to be completed. Rather, Applicants are claiming that the bondhead is accelerated and decelerated the number of times necessary in order to complete the current bond cycle. In other words, the phrase "may be" implies that the bondhead is accelerated if this is necessary for completing the bond cycle in the manner defined by the bonding recipe. However, there might also be the case, that the current bond cycle has already achieved its last phase where the bondhead has only to be braked and stopped when the emergency-off occurs. This feature was introduced in order to further define the meaning of "completing the current bond cycle".

Nevertheless, claim 1 is being amended herein to recite completing the current bond cycle in more positive terminology. More specifically, the phrase "that the bondhead may be accelerated and decelerated one or more times until the current bond cycle is completed" is being amended to "that the bondhead is accelerated and decelerated the number of times necessary for the current bond cycle to be completed."

Applicants respectfully request that the claim amendment be entered for the following reasons:

1. The claim amendment eliminates the objected to expression “may be” and arrives at an equivalent meaning for explaining the completing of a bond cycle in more positive terminology.
2. Since the meaning of completing a bond cycle has already been explained to the Examiner by way of previous responses and telephonic interviews as having support in the specification, no additional search should be required prior to entering the claim amendment.
3. The suggested amendment should therefore be entered as Applicants’ good faith attempt to provide an equivalent claim terminology in an acceptable form for the Examiner, and to advance the more than five year pending application to issue without requiring the Applicants to incur the cost of filing yet another RCE.
4. If the Examiner has his own suggestions for amending the claim terminology, Applicants are willing to arrange for a telephone interview to discuss the matter in order to advance the application to allowance.

Claims 1-3 and 13-15 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over AAPA (Applicants’ Specification, para, [0002]-[0003]) in view of Razon et al. (US 5,890,643) and European Safety Principles, EU Directives and Legislation, January 1, 1997 (IDS). Moreover, claims 4-12 and 16-24 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over AAPA (Applicants’ Specification, para, [0002]-[0003]) in view of Razon et al. (US 5,890,643) and European Safety Principles, EU Directives and Legislation, January 1, 1997 as applied to claim 1 above and further in view of Aragaki (JP 08-031857). The rejections are traversed and reconsideration is respectfully requested.

1. In contrast to the Examiner's writing on page 3, first paragraph, AAPA, namely Applicants' specification para [0002]-[0003], does not mention or disclose a power switch configured for controlling the supply of electrical power by the power module to the drive of the bondhead.

2. Razon et al. does not disclose a wire bonder, but only a low mass ultrasonic bonding tool for use on a wire bonder. While the operation of every wire bonder is controlled by a control program, Razon et al. is completely silent on what the control program does in the event that an emergency switch is activated. Col. 2, lines 20-24 of Razon et al. does not disclose a timer. Razon et al. only describes that individual elements of the transducer driver may be energized in a predetermined time sequence and this has nothing to do with the timer as recited in claim 1. Fig. 19 of Razon et al. illustrates a block diagram of a programmable multi-frequency ultrasonic generator. While this programmable multi-frequency ultrasonic generator contains programmable switches, these programmable switches are used to connect a plurality of sensors to a digital signal processor. As can be seen in Fig. 19, the switches are controlled by the digital signal processor and not by the host CPU. As the present specification concerns a wire bonder and Razon et al. concerns a bonding tool which is only a small part of a wire bonder, it is certainly not obvious to modify the wire bonder of AAPA with elements taken from the bonding tool of Razon et al. if said elements have nothing to do with the action to be taken after an emergency-off.

3. The European Safety Principles disclose stops falling into three categories:

Category 0 is stopping by immediate removal of power to the machine actuators. This is considered an uncontrolled stop.

Category 1 is a controlled stop with power available to the machine actuators to achieve the stop. Power is then removed from the actuators when

the stop is achieved. This category of stop allows powered braking to quickly stop hazardous motion, and then power can be removed from the actuators.

Category 2 is a controlled stop with power left available to the machine actuators. A normal production stop is considered a category 2 stop. The European Safety Principles disclose on page 15 in the section headed "Emergency Stop Function" below the definition of the three categories: "The emergency stop function must operate as either a category 0 or category 1 stop, as determined by a risk assessment. It must be initiated by a single human action. When executed, it must override all other functions and machine operating modes. The objective is to remove power as quickly as possible without creating additional hazards."

Claim 1 is related to the action after an emergency-off which has to cause - according to the European Safety Principles - a stop procedure of category 0 or 1. The European Safety Principles explicitly prevent the person skilled in the art from continuing to operate the wire bonder after activation of the emergency switch until the current bonding cycle has been finished. In contrast to the invention, the safety principles teach to break the wire bonder as soon as possible in order to prevent any hazards. Breaking the wire bonder is completely different from operating the wire bonder as normal until the current bond cycle is completed and then suspend the further wiring.

In view of the foregoing, it is respectfully submitted that claim 1 is not obvious in view of the cited references and should therefore be allowed.

Regarding claim 2, the Examiner is silent as to why it should be obvious in view of the prior art. Therefore, claim 2 should be allowed.

Aragaki is cited by the Examiner in the rejection of claims 4-12 and 16-24 for mentioning pressure or vacuum sensing. However, claims 4-12 and 16-24 each ultimately depend from and thereby incorporate the limitations of claim 1. It has already been demonstrated above with respect to claim 1 that the teachings

of AAPA (Applicants' Specification, para, [0002]-[0003]), Razon et al., and European Safety Principles, EU Directives and Legislation taken either alone or in combination are insufficient to render obvious claim 1. It therefore follows that these cited references also contain insufficient teaching when combined with Aragaki to render obvious claims 4-12 and 16-24.

In any event, claims 2-24 depend directly or indirectly from claim 1 and therefore include all the limitations of claim 1 and should be allowed for at least the same reasons set forth above for claim 1.

In view of the foregoing, it is respectfully submitted that claims 1-24 are not obvious in view of the cited references, and therefore are in condition for allowance. All issues raised by the Examiner having been addressed, an early action to that effect is earnestly solicited.

Applicants hereby petition for a one month extension of time to file this Response. Attorneys for Applicants hereby authorize the Commissioner to charge our Deposit Account No. 13-0235 \$130.00 to cover the extension fee. No additional fees or deficiencies in fees are believed to be owed. However, authorization is hereby given to charge our Deposit Account No. 13-0235 in the event any such fees are owed.

Respectfully submitted,

By /Daniel G. Mackas/
Daniel G. Mackas
Registration No. 38,541
Attorney for Applicants

Customer No. 35301
McCORMICK, PAULDING & HUBER LLP
CityPlace II, 185 Asylum Street
Hartford, CT 06103-3410
(860) 549-5290